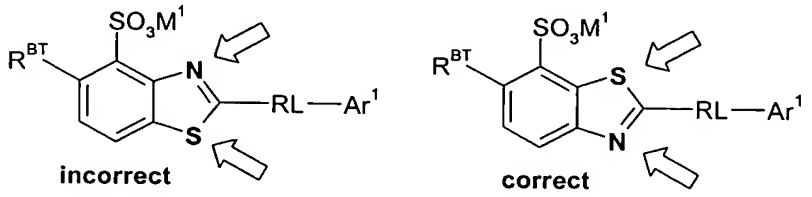
Appendix

Re: correction of International Patent Application No PCT/GB02/01318
Applicant: The University Court of the University of Aberdeen

Summary

There are errors involving the annular nitrogen (N) and sulfur (S) atoms of the thiazole groups in the chemical structures shown in the application as originally filed/published.

Briefly, as described below, in each and every instance, the annular N and S atoms of the thiazole group were incorrectly "swapped" in the drawn structures, for example:



In each case:

It is clear that there is an error: reference to named published structures shows there is an error in the drawn structures.

It is clear what that error is: the drawn structure has the N/S atoms and the associated double bond "swapped".

It is clear what the correction must be: the annular N/S atoms must be exchanged, and the associated double bond moved.

Comment on published sulphonate benzothiazole structures

Figures 5 and 14 of the application as filed/published show the chemical structures of various well known compounds which are identified by name in the corresponding "Brief description of the Figures" (pages 46-47). Reference to named published structures shows there is an error in the drawn structures, and shows what the correction must be. Thus:

Compound 1a in Figure 5 (and the first compound in Figure 14) is named as "primulin". However, the shown structure is clearly incorrect. The correct structure for this compound is known (see, e.g., Aldrich Handbook of Fine Chemicals and Laboratory Equipment, 2003-2004, page 1584, product number 20,686-5, CI 49000, Direct Yellow 5). The N/S atoms and the associated double bond have been "swapped".

Compound 1b in Figure 5 is named as "thioflavin T". However, the shown structure is clearly incorrect. The correct structure for this compound is known (see, e.g., Aldrich Handbook of Fine Chemicals and Laboratory Equipment, 2003-2004, page 1772, product number 22,885-0, CI 49005, Basic Yellow 1). Again, the N/S atoms and the associated double bond have been "swapped".

Compound 3a in Figure 5 is named as "thiazin red". However, the shown structure is clearly incorrect. The correct structure for this compound is known (see, e.g. ChemFinder.com, which shows structure and lists suppliers). Again, the N/S atoms and the associated double bond have been "swapped".

Compound 3b in Figure 5 (and the third compound in Figure 14) is named as "thiazin yellow". However, the shown structure is clearly incorrect. The correct structure for

this compound is known (see, e.g., Aldrich Handbook of Fine Chemicals and Laboratory Equipment, 2003-2004, page 1768, product number 20,204-5, CI 19540, Direct Yellow 9, Thiazol Yellow G). Again, the N/S atoms and the associated double bond have been "swapped".

Copies of these publicly available documents are ~~enclosed~~ attached hereto.

Comment on other sulphonate benzothiazole structures

As shown above, **in each and every case** where a published thiazole compound is named and a structure provided, the corresponding drawn structure has been subject to an N/S exchange error. What's more it is clear that the error in these known structures has been copied into **each and every** structure for thiazole compounds (including all generic and analogue structures) in the application as filed/published.

For example the error is present in the generic thiazole compounds shown on pages 15-28 and 34 to 38, which are termed "SB ligands" (see page 28, lines 14-17). Note that the SB ligand generic structure is stated as **encompassing** a published structure (Compound 1a in Figure 5, which is primulin) - see page 32, line 22. Thus it is clear the same error has occurred, and the same solution must apply to the SB ligand structures.

Likewise the generic thiazole "blocking" compounds on pages 32-34 are said to **encompass** a published structure (thioflavin T) - page 32, line 20. Thus it is clear the same error has occurred, and the same solution must apply to the blocking compound structures.

Consequently, the correction (in each and every thiazole group, the annular N/S atoms must be exchanged, and the associated double bond moved) applies to the **entire application.**

Corrections of Chemical Structures in the Description, Claims, and Drawings

Accordingly, the N /S (or W) atom position have been corrected at the following places:

- Page 15, line 15
- Page 15, line 28
- Page 16, line 11
- Page 16, line 15
- Page 16, line 19
- Page 16, line 3
- Page 16, line 7
- Page 17, line 3
- Page 18, line 3
- Page 19, line 1
- Page 20, line 15
- Page 20, line 6
- Page 20, line 9
- Page 21, line 13
- Page 21, line 16
- Page 22, line 7
- Page 23, line 15
- Page 25, line 15
- Page 25, line 17
- Page 27, line 7
- Page 28, line 2

- Page 28, line 4
- Page 32 (see below)
- Page 34, line 8
- Page 35, line 2
- Page 35, line 5
- Page 35, line 7
- Page 35, line 9
- Page 36, line 11
- Page 36, line 2
- Page 36, line 4
- Page 36, line 7
- Page 36, line 9
- Page 37, line 1
- Page 37, line 11
- Page 37, line 3
- Page 37, line 7
- Page 37, line 9
- Page 38, line 2
- Page 38, line 4
- Page 45 (see below)
- claim 12
- claim 14
- claim 23
- claim 24
- claim 25
- claim 30
- claim 30
- claim 34
- claim 38
- claim 55
- claim 56
- claim 59
- claim 62
- claim 63
- claim 102
- claim 103
- claim 108
- claim 117
- claim 118
- claims 136-149
- Figure 4 (compounds 4a, 4b, 4c)
- Figure 5 (compound 1a)
- Figure 5 (compound 1b)
- Figure 5 (compound 3b)
- Figure 5 (compounds 2, 3a)

Other changes

Unrelated to the above, the chemical name given on page 46, line 27 has been amended to replace "1" with "7" - no benzothiazole can be a 1-sulfonate since the sulfur atom is always indexed as "1" . The correct name is: "2-(4-amino phenyl)-6-methyl-7-sulfonate benzothiazole (compound 2)."

For consistency the following structure has been flipped vertically (note there is no change in substance) only in presentation. Also the opportunity has been taken to add the required "+" to the tetravalent annular N:

- Page 32, line 5
- claim 82

In the following structures, the opportunity has been taken to add the required "+" to the tetravalent annular N:

- claim 102
- Figure 5 (compound 1b)

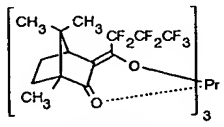
Encs:

Replacement pages of description, claims and Figures as described
Publicly available documents showing primulin, thiaflavin Red, thiazin Red, thiazine Yellow.

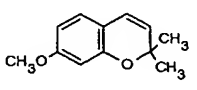
* * *

Version1 - 10 September 2003

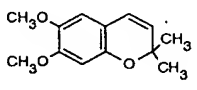
			£
42,570-2	**Praseodymium(III) trifluoromethanesulfonate,** 98% [*52093-27-3*] ..... [praseodymium(III) triflate] $(CF_3SO_3)_3Pr$ FW 588.11 *HYGROSCOPIC* R: 36/37/38 S: 26-36 A water-tolerant Lewis acid used in the Aldol reaction of silyl enol ethers with aldehydes. *J. Org. Chem.* **1994,** *59,* 3590.	5g 25g	17.60 60.30
	Praseodymiumtris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionate), see 16,135-7, Resolve-Al™ PrFOD page 1626		
23,724-8 ✓	**Praseodymiumtris[3-(heptafluoropropylhydroxymethylene)-(+)-camphorate],** 98% [*38832-94-9*] $[Pr(hfc)_3]$ FW 1,182.67 $[\alpha]_D^{25}$ +175° (c=1, $CHCl_3$) *FT-IR* 1(1),557B *Safety* 2,3531B *R&S* 1(2),3097C *HYGROSCOPIC* Optically active NMR shift reagent. Licensed under U.S. Patents 3 700 410 (to Sievers), 3 789 060 and 3 915 641 (to Goering *et al.*)	100mg 1g	12.80 40.60
	Praseodymium tris(2,2,6,6-tetramethyl-3,5-heptanedionate), see 16,088-1, Resolve-Al™ Pr page 1625		
17,770-9 ★	**Praseodymium tris[3-(trifluoromethylhydroxymethylene)-(+)-camphorate],** 98% [*38053-99-5*] $[Pr(tfc)_3]$ FW 882.62 mp 210-212° $[\alpha]^{25}$ +175° (c=1.3, $CHCl_3$) *FT-IR* 1(1),556C *Safety* 2,3536A *R&S* 1(2),3095K *HYGROSCOPIC* S: 22-24/25 Licensed for use under Sievers' U.S. Patent 3 700 410	1g 5g	25.50 111.40
19,585-5 ✓ ★	**Precocene I,** 99% [*17598-02-6*](7-methoxy-2,2-dimethyl-3-chromene) ..... FW 190.24 bp 68°/0.1mm n_D^{25} 1.5600 d 1.052 Fp >230°F(110°C) *Merck Index* 13,7716 *FT-NMR* 1(2),226C *FT-IR* 1(1),1062D *R&S* 1(1),1255E *RTECS#* DJ2529000	1g 5g	29.00 115.80
19,491-3 ✓ ★	**Precocene II,** 99% [*644-06-4*](6,7-dimethoxy-2,2-dimethyl-3-chromene) ..... FW 220.27 mp 46-47° Fp >230°F(110°C) *Merck Index* 13,7716 *FT-NMR* 1(2),227A *FT-IR* 1(1),1063A *R&S* 1(1),1255F *RTECS#* DJ2527000	250mg 1g	23.10 54.30
28,698-2 ★	**Prednisolone,** 98% [*50-24-8*] (11β,17α,21-trihydroxypregna-1,4-diene-3,20-dione) FW 360.45 mp 240°(dec.) $[\alpha]^{25}$ +97° (c=1, dioxane) *Beil.* 8(4),3467 *Merck Index* 13,7807 *FT-NMR* 1(3),585B *Safety* 2,2914C *R&S* 1(2),2863J *RTECS#* TU4152000 R: 40-48 S: 22-24/25	1g 5g	18.00 64.30
28,699-0 ★	**Prednisone,** 98% [*53-03-2*] (17α,21-dihydroxypregna-1,4-diene-3,11,20-trione) FW 358.44 mp 236-238° $[\alpha]^{25}$ +169° (c=0.5, dioxane) *Beil.* 8(4),3531 *Merck Index* 13,7810 *FT-NMR* 1(3),587B *Safety* 2,2915C *R&S* 1(2),2865E *RTECS#* TU4154100 R: 63 S: 45-53-36/37/39	1g 5g	21.00 72.10
	4,16-Pregnadiene-3,20-dione, see D420-2, 16-Dehydroprogesterone page 553		
14,766-4 ★	**Pregnenolone,** 98% [*145-13-1*] FW 316.49 mp 190-192° $[\alpha]^{23}$ +27° (c=1, C_2H_5OH) .. *Merck Index* 13,7822 *FT-NMR* 1(3),577B *FT-IR* 1(2),1051D *Safety* 2,2940C *R&S* 1(2),2859M *RTECS#* TU5560700 S: 22-24/25	5g 25g	14.60 46.90
P4,990-2 ★	**Pregnenolone acetate,** 99% [*1778-02-5*] FW 358.52 mp 149-152° ..... $[\alpha]_D^{25}$ +19° (c=1, C_2H_5OH) *Merck Index* 13,7739 *FT-NMR* 1(3),601A *FT-IR* 1(2),1061C *Safety* 2,2940D *R&S* 1(2),2871N S: 22-24/25	5g 25g	14.30 53.90
	Prenyl bromide, see 24,990-4, 4-Bromo-2-methyl-2-butene page 293		
	$Pr(fod)_3$, see 16,135-7, Resolve-Al™ PrFOD page 1626		
	$Pr(hfc)_3$, see Praseodymium tris[3-(heptafluoropropylhydroxymethylene)-camphorate]		
16,039-3 ✓ ★	**Primaquine diphosphate,** 98% [*63-45-6*][8-(4-amino-1-methylbutylamino)-6-methoxyquinolinediphosphate] FW 455.35 mp 205-206°(dec.) *Merck Index* 13,7833 *FT-NMR* 1(3),438C *FT-IR* 1(2),864B *Safety* 2,2942C *R&S* 1(2),2621K *RTECS#* VA9660000 RID/ADR 6.1/25c R: 25 S: 45-36/37/39	1g 10g	15.50 91.30
20,686-5 ✓ NEW	**Primuline** [*8064-60-6*] (C.I. 49000, Direct Yellow 59) FW 475.55 ..... λ*max* 229(345)nm *FT-IR* 1(2),1039B *R&S* 1(2),2837D *UV-Vis* 588 *RTECS#* TV1050000 Dye content ~50%	5g 25g	23.00 76.50
	Pristane, see T2,280-2, 2,6,10,14-Tetramethylpentadecane page 1755		



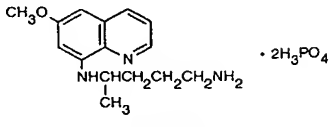
23,724-8



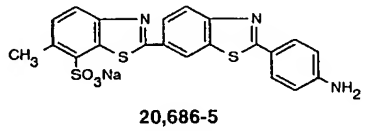
19,585-5



19,491-3

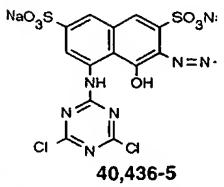


16,039-3



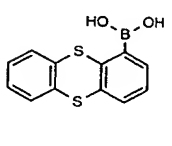
20,686-5

			£
22,296-8 ★	**Procainamid** ethyl)benza mp 167-169° *FT-IR* 1(2),37 R: 20/21/22-3		
22,297-6 ★	**Procaine hy** 4-aminoben mp 155-156° *Safety* 2,2943 S: 45-36/37/3		
	Procion Blu		
40,436-5 ✓ ★	**Procion Red** λ*max* 538nm Dye content -		
37,255-2	**Procion Yell** *R&S* 1(2),275		
	Proflavine h page 564		
	Proflavine h page 564		
85,045-4 ★	**Progesteron** *Merck Index* *R&S* 1(2),285		
	Proglyde™ D ether page		
28,705-9 ✓ ★	**L-Prolinamid** *Beil.* 22(4),15		
85,891-9 ★	**D-Proline,** 9 $[\alpha]^{22}$ +85.0° (*FT-IR* 1(1),58 98% ee/GLC		
17,182-4 ★	**DL-Proline,** *Merck Index* *R&S* 1(1),663		
13,154-7 ✓ ★	**L-Proline,** 9 $[\alpha]_D^{25}$ -84° (c= *Index* 13,787 *RTECS#* TW Catalyst for e amino acids. *Asymmetry* 1 *Chem.* **1994,** 98% ee/GLC		
36,446-0 ✓ ★	**L-Proline be** $[\alpha]_D^{25}$ -48° (c= *HYGROSCC* Extensive ap asymmetric		
28,706-7 ✓ ★	**L-Proline m** $[\alpha]_D^{25}$ -31° (c= *R&S* 1(1),77		
	Prolinol, se		
	Propadiene,		
49,330-9 ★	**Propane-1-1** bp –42.1° *B* (*Packaged ir*		

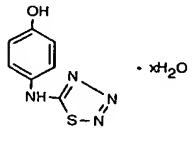


40,436-5

				£
51,221-4	**Thianthrene-1-boronic acid** [*108847-76-3*] FW 260.14 mp 146-149° *Beil.* 19(4),4411 Contains varying amounts of anhydride.		5g	65.30
	Thiapendione, see 27,845-9, 1,3,4,6-Tetrathiapentalene-2,5-dione page 1763			
	L-Thiaproline, see T2,750-2, (*R*)-(-)-Thiazolidine-4-carboxylic acid page 1768			
18,863-8 ★	**4-(1,2,3,4-Thiatriazol-5-ylamino)phenol hydrate,** 95% [*256348-45-5*] FW 194.22 . mp 153°(dec.) *FT-IR* 1(2),652B *R&S* 1(2),2395A R: 36/37/38 S: 26-37/39		1g 5g	30.50 100.70
15,164-5 ★	**Thiazole,** 99% [*288-47-1*] FW 85.13 bp 117-118° n_D^{20} 1.5390 d 1.200 Fp 72°F(22°C)... *Beil.* 27,15 *Merck Index* 13,9378 *FT-NMR* 1(3),108B *FT-IR* 1(2),642D *Safety* 2,3320C *R&S* 1(2),2385D *RTECS#* XJ1290000 RID/ADR 3/3b R: 10-22 S: 23-24/25 Naturally occurring compound in sesame seed oil[1] and chicken.[2] (1) *Koryo* **1990,** *165,* 91; *Chem. Abstr.* **1990,** *113,* 210350s. (2) *Lebensm.-Wiss. Technol.* **1986,** *19,* 122; *Chem. Abstr.* **1986,** *105,* 189645q.		1g 5g	10.60 42.90
42,246-0	**2-Thiazolecarboxaldehyde,** 97% [*10200-59-6*] FW 113.14 bp 61-63°/15mm ..... n_D^{20} 1.5740 d 1.288 Fp 154°F(67°C)		250mg 1g	13.90 39.70
39,006-2	**Thiazole Orange** [*107091-89-4*] [1-methyl-4-[(3-methyl-2(3*H*)-benzothiazolyl- .... idene)methyl]quinolinium *p*-tosylate] FW 476.62 mp 270°(dec.) λ*max* 512nm *R&S* 1(2),2823B *STENCH* R: 36/37/38 S: 26-36 A fluorescent dye for reticulocyte analysis. *Cytometry* **1986,** *7,* 508. Dye content ~90%		250mg 1g	17.00 48.50
14,969-1 ★	**Thiazolidine,** 95% [*504-78-9*] FW 89.16 bp 72-75°/25mm n_D^{20} 1.5500 d 1.131 ..... Fp 133°F(56°C) *FT-NMR* 1(1),604A *FT-IR* 1(1),352D *Safety* 2,3320D *R&S* 1(1),405I *RTECS#* XJ5123700 RID/ADR 3/31c		1g 5g 25g	20.50 52.70 159.80
46,799-5	**Thiazolidine-2-carboxylic acid,** 97% [*65126-70-7*] FW 133.17 mp 176° ..... $[\alpha]_D^{22}$ 0° (c=1, H_2O) *Beil.* 27(4),3951 R: 20/21/22-36/37/38 S: 26-36		1g 5g	9.70 32.00
T2,750-2 ★	**(*R*)-(-)-Thiazolidine-4-carboxylic acid,** 98% [*34592-47-7*] (L-thiaproline)..... FW 133.17 mp 192-193° $[\alpha]_D^{20}$ -141° (c=1.3, H_2O) *Beil.* 27(4),3952 *Merck Index* 13,9375 *FT-IR* 1(1),596D *R&S* 1(1),675J *RTECS#* XJ5425500 R: 20/21/22-36/37/38 S: 26-36 Used in peptide coupling reactions. *Bioorg. Med. Chem. Lett.* **1994,** *4,* 887.		10g 100g	9.80 61.60
	Thiazolidine-2-carboxylic acid methyl ester hydrochloride, see 54,875-8, Methyl thiazolidine-2-carboxylate hydrochloride page 1297			
37,500-4 ★	**2,4-Thiazolidinedione,** tech., 90% [*2295-31-0*] FW 117.13 mp 125-127° *Beil.* 27,233 *FT-NMR* 1(1),1318A *FT-IR* 1(1),809D *R&S* 1(1),949K *RTECS#* XJ5775000 S: 22-24/25 Starting material for the synthesis of drugs with antihyperglycemic activity. *J. Med. Chem.* **1990,** *33,* 1418.		25g 100g	32.40 84.80
	2-Thiazoline-2-thiol, see M620-4, 2-Mercaptothiazoline page 1166			
53,424-2 NEW	**Thiazolo[2,3-*b*]benzimidazole-3(2*H*)-one,** 97% [*3042-01-1*] (benzo[4,5]- ..... imidazo[2,1-*b*]thiazol-3-one) FW 190.22 mp 180-184° R: 36/37/38 S: 26-36		25g	49.60
20,204-5 ★	**Thiazol Yellow G** [*1829-00-1*] (C.I. 19540, Direct Yellow 9) FW 695.73 ..... λ*max* 402nm *Beil.* 27(2),509 *Merck Index* 13,9381 *FT-IR* 1(2),1004D *Safety* 2,3321A *R&S* 1(2),2769D *UV-Vis* 698 *RTECS#* DL6423000 *LIGHT-SENSITIVE* S: 22-24/25 Dye content ~40%		10g 50g	10.70 35.30
29,454-3	**2-(2-Thiazolylazo)-*p*-cresol,** 97% [*1823-44-5*] FW 219.27 mp 130-132° ..... *FT-NMR* 1(3),113A *Safety* 2,3321C *R&S* 1(2),2387C R: 36/37/38 S: 26-36		1g 5g	18.70 73.60

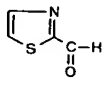


51,221-4

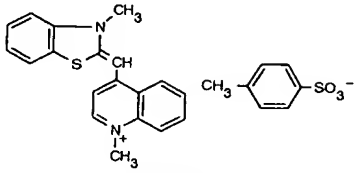


18,863-8

15,164-5

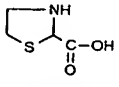


42,246-0

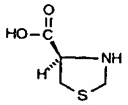


39,006-2

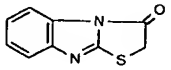
14,969-1



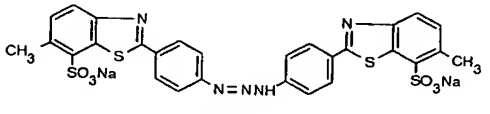
46,799-5



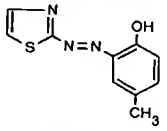
T2,750-2



53,424-2

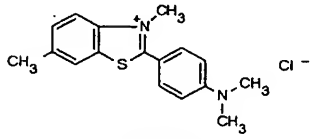


20,204-5

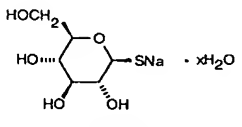


29,454-3

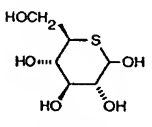
			£
16,678-2 ★	**2,2'-Thiodiethanol,** 99+% [*111-48-8*] (2-hydroxyethyl sulfide) $S(CH_2CH_2OH)_2$ ..... FW 122.19 mp −16° bp 164-166°/20mm n_D^{20} 1.5210 d 1.221 Fp >230°F(110°C) *Beil.* 1,470 *Merck Index* 13,9404 *FT-NMR* 1(1),443A *FT-IR* 1(1),276B *Safety* 2,3328B *R&S* 1(1),293C *RTECS#* KM2975000 *STENCH* R: 36 S: 26	100g 500g	6.50 14.80
	Thiodiglycol, see 16,678-2, 2,2'-Thiodiethanol page 1772		
T3,000-7 ★	**Thiodiglycolic acid,** 98% [*123-93-3*] (thiodiacetic acid) $S(CH_2CO_2H)_2$ FW 150.15 mp 128-131° *Beil.* 3,253 *Merck Index* 13,9405 *FT-NMR* 1(1),820A *FT-IR* 1(1),529B *Safety* 2,3328C *R&S* 1(1),573L *RTECS#* AJ6475000 RID/ADR 8/39b R: 34 S: 26-45-36/37/39	5g 25g	4.00 5.70
21,617-8 ★	**4,4'-Thiodiphenol,** 99% [*2664-63-3*] (4-hydroxyphenyl sulfide) $S(C_6H_4OH)_2$ ..... FW 218.27 mp 154-156° *Beil.* 6,860 *FT-NMR* 1(2),442A *FT-IR* 1(1),1186C *Safety* 2,3328D *R&S* 1(1),1375I *RTECS#* SN0800000 RID/ADR 8/39b R: 34 S: 26-27-45-36/37/39	5g 100g 500g	6.90 10.30 30.60
40,638-4	***S,S'*-Thiodi-4,1-phenylene bis(thiomethacrylate),** 99% [*129283-82-5*] ..... $[H_2C{=}C(CH_3)COSC_6H_4]_2S$ FW 386.56 mp 63-65° R: 43-36/37/38 S: 26-36	10g 50g	83.80 279.30
20,534-6 ★	**3,3'-Thiodipropanol,** 98% [*10595-09-2*] $S(CH_2CH_2CH_2OH)_2$ FW 150.24 ..... bp 140-142°/0.5mm n_D^{20} 1.5100 d 1.092 Fp >230°F(110°C) *Beil.* 1(2),544 *FT-NMR* 1(1),444A *FT-IR* 1(1),276A *R&S* 1(1),293G RID/ADR 6.1/25c	1g 5g	15.00 40.70
T3,020-1 ★	**3,3'-Thiodipropionic acid,** 97% [*111-17-1*] $S(CH_2CH_2CO_2H)_2$ FW 178.21 ..... mp 131-134° *Merck Index* 13,9406 *FT-IR* 1(1),529C *Safety* 2,3329A *R&S* 1(1),575A *RTECS#* UF7990000 R: 36/37/38 S: 26-36	5g 100g 500g 3kg	4.40 4.90 13.10 50.50
45,901-1	**3,3'-Thiodipropionic acid, polymer-bound** R: 36 S: 26-36 ..... For reductive quenching of ozonolysis reactions. Appell, R.B., et. al. *Synth. Commun.* **1995,** *25*(22), 3589. Thiodipropionic acid on DOWEX SBR resin. 20-50 mesh, ca. 2.5 meq S/g	10g 50g	11.10 36.60
23,045-6 ★	**Thioflavin S** [*1326-12-1*] (C.I. 49010, Direct Yellow 7) λmax 374nm ..... *R&S* 1(2),2837E *UV-Vis* 700 *RTECS#* TV1050000 S: 22-24/25	25g	19.50
22,885-0 ✓ ★	**Thioflavin T** [*2390-54-7*] (Basic Yellow 1, C.I. 49005) FW 318.87 λmax 412nm .... *Beil.* 27,377 *FT-IR* 1(2),1004C *R&S* 1(2),2837C *UV-Vis* 701	5g 25g	12.40 36.90
	1-Thioflavone, see 27,283-3, 2-Phenylthiochromen-4-one page 1465		
47,127-5 ✓ ★	**1-Thio-β-D-glucose, sodium salt hydrate** [*308103-41-5*] FW 218.21 mp 130°(dec.) $[\alpha]_D^{20}$ +3.5° (c=1.5, H_2O) *Beil.* 1(4),4391	500mg 1g	23.00 38.50
85,986-9 ✓ ★	**5-Thio-D-glucose,** 96%, predominantly α-anomer [*20408-97-3*] FW 196.22 ..... mp 135-138° $[\alpha]_D^{20}$ +188° (c=1, H_2O, 2hrs.) *Merck Index* 13,9408 *FT-NMR* 1(1),300C *FT-IR* 1(1),190C *R&S* 1(1),193I *RTECS#* LZ7500000 S: 22-24/25	10mg 25mg	22.40 49.00
10,447-7 ★	**1-Thio-β-D-glucose tetraacetate,** 97% [*19879-84-6*] FW 364.37 mp 115-117° ..... $[\alpha]_D^{20}$ +5.8° (c=2.2, $CHCl_3$) *Beil.* 2(4),359 *FT-NMR* 1(1),1057C *FT-IR* 1(1),625C *R&S* 1(1),763B	1g	34.60
	1-Thioglycerol, see M560-7, 3-Mercapto-1,2-propanediol page 1165		
51,685-6 NEW ★	**Thioglycolic acid,** 80% [*68-11-1*] (ATG™ 80%) $HSCH_2CO_2H$ FW 92.12 ..... *Merck Index* 13,9410 RID/ADR 8/32b1. Product of Elf Atochem	25mL 100mL 1L 5L	6.00 6.40 12.60 52.00
	Thioglycolic acid, see Mercaptoacetic acid		
	6-Thioguanine, see A7,690-7, 2-Amino-6-purinethiol page 108		
	Thioguanosine, see 85,841-2, 2-Amino-6-mercaptopurine riboside page 91		
T3,040-6 ✓ ★	**2-Thiohydantoin,** 99% [*503-87-7*] FW 116.14 mp 229-231°(dec.) *Beil.* 24,260 ..... *FT-NMR* 1(1),1348B *FT-IR* 1(1),836B *R&S* 1(1),979N *RTECS#* MU4200000 R: 20/21/22 S: 36	5g 25g	10.20 33.00
T3,080-5 ★	**Thiolacetic acid,** 96% [*507-09-5*] CH_3COSH FW 76.12 bp 88-91.5° n_D^{20} 1.4630 ..... d 1.065 Fp 52°F(11°C) *Beil.* 2,230 *Fieser* 1,1154 15,307 *Merck Index* 13,9392 *FT-NMR* 1(1),817C *FT-IR* 1(1),528A *Safety* 2,3330A *R&S* 1(1),573A *RTECS#* AJ5600000 RID/ADR 3/3b R: 11-34 S: 9-16-26-45-36/37/39 Reagent for introduction of the thiol group into organic molecules.	5g 100g 500g	6.30 14.20 49.50



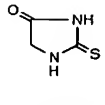
22,885-0



47,127-5

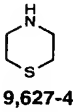


85,986-9



T3,040-6

			£
T3,100-3 ★	**Thiolactic a** FW 106.14 n *Merck Index* *R&S* 1(1),57 S: 26-45-36/		
	Thiol 2-chlo polymer-bou		
56,436-2 NEW	**Thiol 4-mett** Typical loadir		
	Thiomalic a		
36,188-7 ★	**(1*S*,2*S*)-(+)-T** thio)phenyl] mp 151-154° *R&S* 1(1),14		
19,627-4 ✓ NEW ★	**Thiomorpho** FW 103.19 b *FT-NMR* 1(1) RID/ADR 3/3		
	Thionaphthe		
T3,165-8 ✓ ★	**Thionicotina** *FT-NMR* 1(3), *RTECS#* QS		
86,134-0 ✓	**Thionin,** cert *Merck Index* A metachrom Dye content -		
34,115-0 ★	**Thionin perc** *FT-NMR* 1(3),		
T3,170-4 ★	***N*-Thionylani** bp 200° n_D^{20} 1 *FT-NMR* 1(2); R: 36/37/38-4 Versatile syntl		
25,125-9 ★	**Thionyl bron** n_D^{20} 1.6750 d 2 *FT-IR* 1(2),12 R: 14-34-37 S		
44,728-5 ★	**Thionyl chlo** d 1.631 Fp nc RID/ADR 8/12 Fe <5 ppm		
23,046-4 ★	**Thionyl chlo**		
32,054-4 ★	**Thionyl chlo** (*Packaged in*		
32,053-6 ★	**Thionyl chlo** (*Packaged in*		
29,312-1 ★	**Thionyl chlo** d 1.373 Fp no 10,399 *Merc* R: 34-40-20/2 (*Packaged un*		
	Thiooxine hy page 1621		
	Thiophane, s		



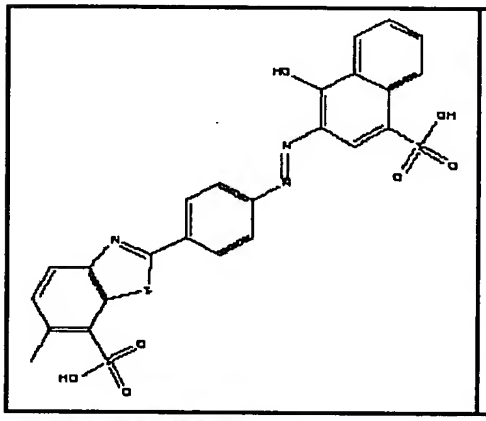
19,627-4

Enter a Chemical Name, CAS Number, Molecular Formula or Weight.
Use * for partial names (e.g. ben*).
Search here for free. For professional searching, use ChemINDEX.

Search

Thiazine Red R [2150-33-6]

Synonyms: THIAZINE RED; Thiazine Red R;



Tools

BUY AT CHEMACX.COM
VIEW CHEMDRAW STRUCT
VIEW CHEM3D MODEL

CAS RN Lookup

THE MERCK INDEX
NCI DATABASE

OpenChem

VIEW LINKS
ADD COMPOUND
ADD/CHANGE PROPERTY
ADD LINK

Formula	$C_{24}H_{17}N_3O_7S_3$	Molecular Weight	555.5942
CAS RN	2150-33-6	Melting Point (°C)	
ACX Number	X1012783-6	Boiling Point (°C)	
Density		Vapor Density	
Refractive Index		Vapor Pressure	
Evaporation Rate		Water Solubility	
Flash Point (°C)		EPA Code	
DOT Number		RTECS	
Comments			

More information about the chemical is available in these categories:

Chemical Online Order (1)
Available Chemicals Exchange
Information about this particular compound

Physical Properties (1)
Fluorochromes

Enter a Chemical Name, CAS Number, Molecular Formula or Weight.
Use * for partial names (e.g. ben*).
Search here for free. For professional searching, use ChemINDEX.

Search

CambridgeSoft.Com | ChemStore.Com | ChemFinder.Com | ChemNews.Com | ChemClub.Com

Email info @ chemfinder.com / support @ chemfinder.com
Tel 1 800 315-7300 / 1 617 588-9300 **Fax** 1 617 588-9390
CambridgeSoft Corporation, 100 CambridgePark Drive, Cambridge, MA 02140 USA

THIAZINE RED R

FOUND 2 SUPPLIERS SELLING 2 PRODUCTS

THIAZINE RED

ICN ☎ Cat#: 208297 CATALOG DETAILS 🕮

PackID	Size	Price	VIEW SHOPPING CART 🛒
208297	10g	$254.10	☐ ◂add to cart QTY:

THIAZINE RED

TCI ☎ Cat#: T0554 CATALOG DETAILS 🕮

PackID	Size	Price	VIEW SHOPPING CART 🛒
T0554	5g	NA	☐ ◂add to cart QTY: